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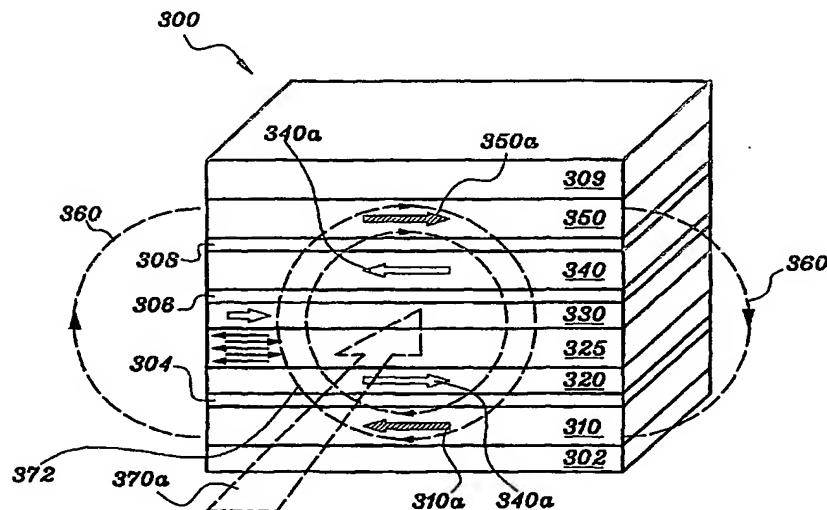
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(54) Title: MAGNETIC MEMORY DEVICE



(57) Abstract: A memory cell for a magnetic memory device comprising a first hard magnetic layer having a first fixed magnetization vector; a second hard magnetic layer having a second fixed magnetization vector; a first soft magnetic layer having a first alterable magnetization vector and disposed adjacent to the first hard magnetic layer and a second soft magnetic layer having a second alterable magnetization vector and disposed adjacent to the second hard magnetic layer, the first and the second soft magnetic layers are magnetostatically coupled antiparallel to each other to form a flux-closed structure. An electrically conductive layer is disposed between the two soft magnetic layers for passing an electric current therethrough to perform the read and write operations. A magnetic memory device made thereof possesses a higher thermal stability against external thermal fluctuations and in the meantime has a lower power dissipation in writing operations.

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